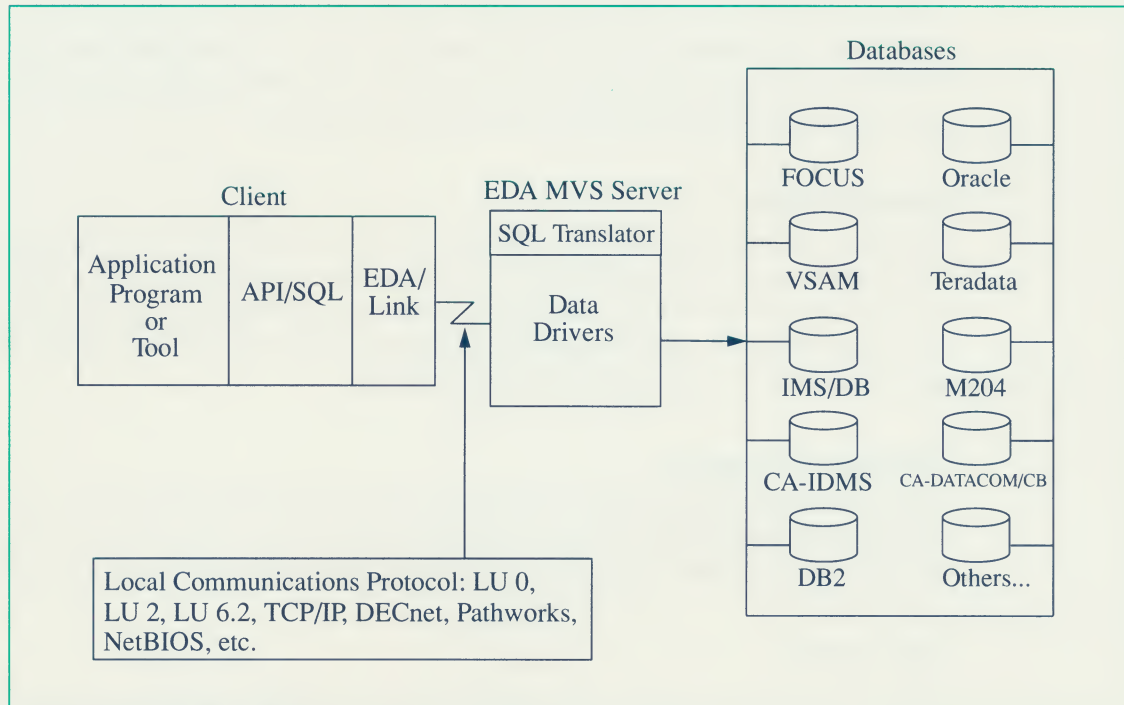


Enterprise Data Access/SQL™

API/SQL™

Product Fact Sheet

Now a 3GL application can access local or remote data via SQL calls. Installed on the client side, API/SQL allows application developers to control the entire client/server environment – even remote applications – using its complete library of functions. A typical API/SQL configuration is shown below:



Communicating with an MVS Server

Supported Platforms

The API/SQL is currently available on the platforms listed below:

- | | | |
|------------------|-------------|-----------|
| ■ DOS | ■ Macintosh | ■ RS/6000 |
| ■ MS Windows 3.0 | ■ OS/2 | ■ MVS |
| ■ Sun/OS | ■ VAX/VMS | ■ VM |

(Please ask your IBI representative about other platforms of interest not included here.)

Communications Functions

These functions establish and remove sessions on the server on behalf of your application. Multiple sessions can be established with a single server, and multiple servers can be accessed simultaneously.

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Data Access Functions

These functions manage data on the server. Some of them submit SQL statements to the server, describe data to be retrieved, and prepare SQL statements for later execution. Other functions test for null values in answer set columns, and fetch rows or columns from the answer sets. Complete SQL functionality is supported for accessing any server-based data.

Remote Procedure Call Functions

These functions allow an application to invoke a 3GL program on the server and pass data back and forth between those procedures and the client application. Since any type of program – from statically bound SQL transactions to complex 4GL applications – may be executed, your existing programs can still be used in the client/server environment.

Message Handling Functions

These functions permit an application to receive any message sponsored by the server or database environment on the host. In addition, they enable remote procedure calls (RPCs) to interact with the client during their execution. This means client applications can drive conversational transactions in a data-dependent fashion.

Control Functions

Control functions maximize client/server multiprocessing, while maintaining data integrity. They enable your client application to continue processing while SQL requests or RPCs are executing on the server. They also permit your application, or threads or tasks within your application, to inquire about the status of pending requests and RPCs. Transaction control functions support Remote Units of Work.

Environmental Functions

These functions permit you to establish or remove the API environment, inquire about the status and characteristics of the environment, and change some of those characteristics. For example, you can limit the number of rows an application receives from a query.

Trace Facilities

The API includes complete trace and debugging facilities to enable you to build and debug complex client/server applications with a minimum of effort. Trace facilities permit the full range of application activities – from high-level API calls to low-level communications events – to be observed.

For More Information

If you would like more information about API/SQL, please contact your local Information Builders sales office or Micro Products Telesales. In the U.S. and Canada, call: 1-800-969-INFO.

Information Builders, Inc.

Worldwide Corporate Headquarters 1250 Broadway, New York, NY 10001-3782 (212) 736-4433

European Headquarters Station House, Harrow Road, Wembley, Middlesex HA9 6DE (44) 81 900-2255

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Enterprise Data Access/SQL™

EDA/SQL™ Server for VAX/VMS™

Product Fact Sheet

The EDA/SQL Server for VAX/VMS is a multiuser server that manages the process of extracting data from files or databases on VMS machines. The subsystems and facilities handle the flow of incoming requests and generate the resulting answer sets, as well as all interaction with communications protocols and target databases, and administrative functions, including accounting, trace, and security measures. The principal components of the EDA/SQL Server for VAX/VMS are described below.

Scheduler/Initiator Subsystem

The scheduler/initiator subsystem is the heart of the EDA/SQL Server. This subsystem receives client requests and manages the subsystems that process them.

Communications Subsystem

The communications subsystem contains a communications kernel, client session layers, and host communications interfaces to LU 0 and DECnet.™ This subsystem unpacks communications packets, extracting client SQL requests, which the scheduler forwards to the Universal SQL Translator or directly to the data access engine for further processing. The communications subsystem also packages resulting answer sets for transmission back to the clients.

Universal SQL Translator

The Universal SQL Translator maps the ANSI Level 1 SQL syntax of a request into the correct command stream for the target database management system by interacting with the appropriate data driver.

Data Access Engine

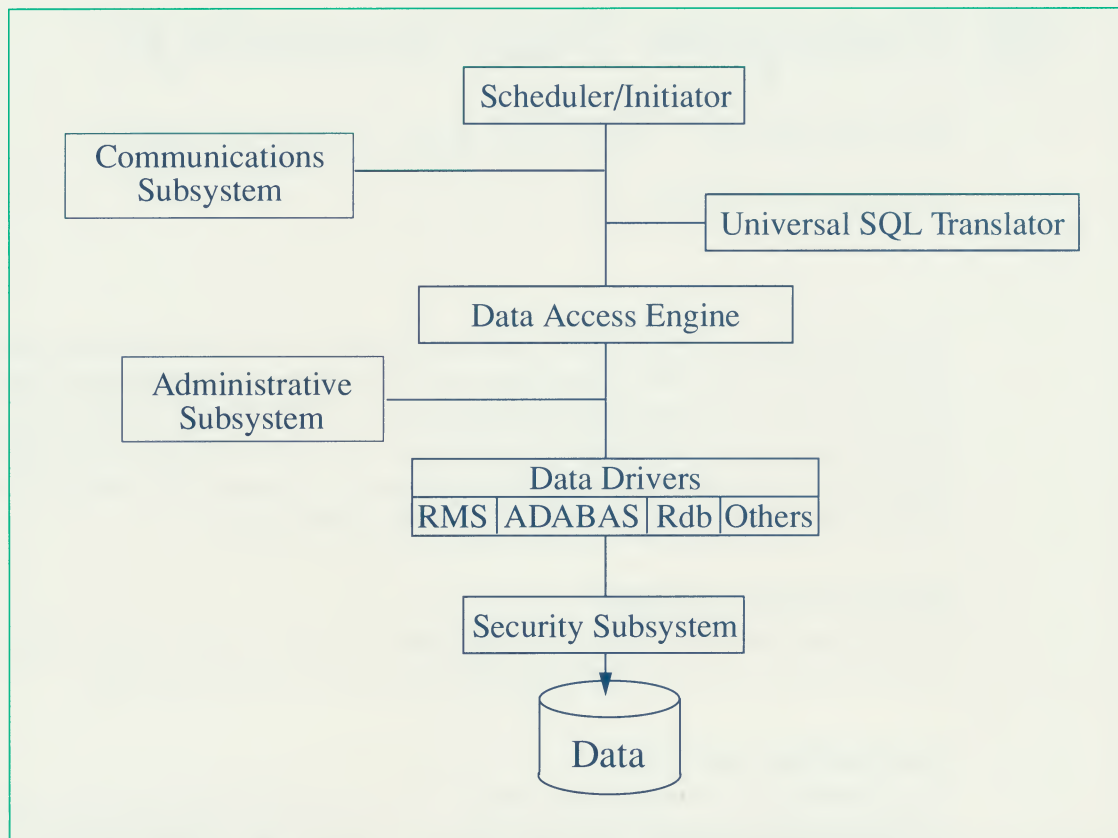
The data access engine manages all processes involved in the collection of data and the formatting of answer sets. The data access engine can simultaneously join up to 16 dissimilar data structures.

Administrative Subsystem

The administrative subsystem manages transaction trace and accounting functions, and handles interactions with operating system security through its security interface.

Data Drivers

A separate data driver is provided for each database that EDA/SQL accesses. These handle idiosyncracies and inconsistencies between SQL databases and nonrelational data structures, and resolve minor differences between the ANSI-compliant SQL syntax supplied by the various relational database vendors. Variations in syntax, functionality, schema, data types, catalog name, and data representation are addressed through the Universal SQL Translator and the appropriate data driver.



EDA/SQL Server for VMS components

Hardware and Software Requirements

Hardware

- DEC VAX or MicroVAX CPU
- DECnet/SNA Gateway

Software

- VAX/VMS Version 5, or MicroVMS Version 5
- DECnet
- DECnet/SNA VMS Application Programming Interface, Release 2.2 and higher*
- EDA/SQL Server Protocol Interface (DECnet, LU 0)*
- EDA/SQL Data Drivers (as needed)

*Required if connecting remote API/SQL clients or MVS central server to the EDA/SQL Server for VMS.

For More Information

If you would like more information about EDA/SQL Server for VAX/VMS, please contact Information Builders, Inc. In the U.S. and Canada, call: 1-800-969-INFO.

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Enterprise Data Access/SQL™

EDA/SQL™ Server for MVS™

Product Fact Sheet

The EDA/SQL Server for MVS is a multiuser, multithreaded server that manages the process of extracting data from files or databases under EDA/SQL. The subsystems and facilities handle the flow of incoming requests and generate the resulting answer sets, as well as all interactions with communications protocols and target databases, and administrative functions, including accounting, trace, and security measures. The principal components of the EDA/SQL Server for MVS are described below.

Scheduler/Initiator Subsystem

The scheduler/initiator subsystem is the heart of the EDA/SQL Server. This subsystem receives client requests and manages the subsystems that process them.

Communications Subsystem

The communications subsystem contains a communication kernel, client session layers, and host communication interfaces to LU 0, LU 2, LU 6.2, and TCP/IP. This subsystem unpacks communication packets, extracting client SQL requests, which the scheduler forwards to the Universal SQL Translator or data access engine for further processing. The communications subsystem also packages resulting answer sets for transmission back to the client.

Universal SQL Translator

The Universal SQL Translator maps the ANSI Level 1 SQL syntax of the request into the correct command stream for the target database management system by interacting with the appropriate data driver.

Data Access Engine

The data access engine manages all processes involved in the collecting and the formatting of answer sets and determines the location of information through the EDA/DBA facility. The data access engine can simultaneously join up to 16 dissimilar data structures.

Administrative Subsystem

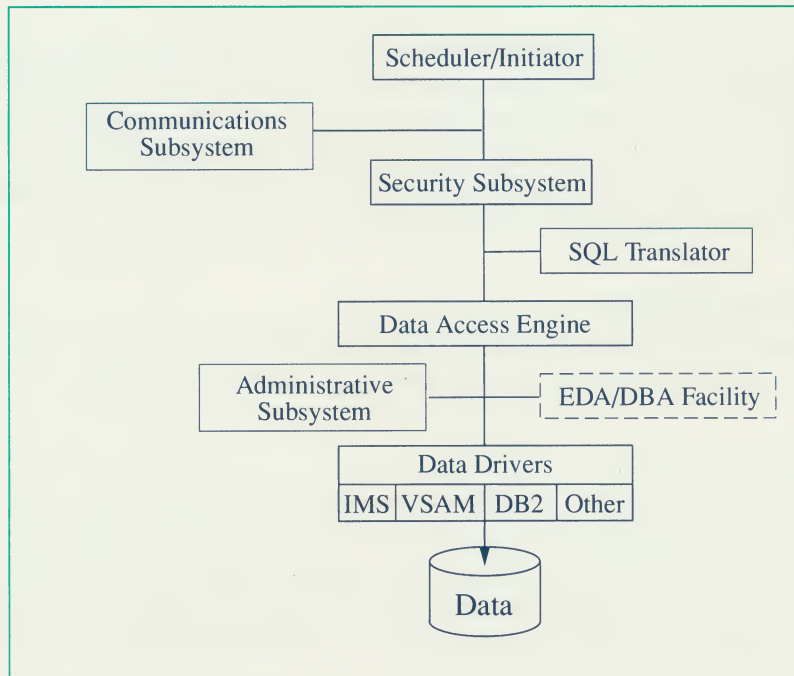
The administrative subsystem manages transaction trace and accounting functions, and handles interactions with operating system security – ACF2®, RACF™, and CA-TOP SECRET®, for example – through its security interface.

EDA/DBA Facility

The EDA/DBA facility maintains the catalog of files and databases on the network that are available to the EDA/SQL Server for MVS.

Data Drivers

A separate data driver is provided for each database that EDA/SQL accesses (see EDA/Data Drivers fact sheet). These handle idiosyncracies and inconsistencies between SQL databases and nonrelational data structures, and resolve minor differences between the ANSI-compliant SQL syntax supplied by different vendors. Variations in syntax, functionality, schema, data types, catalog name, and data representation are addressed through the Universal SQL Translator and the appropriate data driver.



EDA/SQL Server for MVS components

Hardware and Software Requirements

Hardware

- IBM System/370-compatible mainframe

Software

- MVS/XA or MVS/ESA
- ACF/VTAM 3.2 and higher
- EDA/SQL Server Protocol Interface (LU 0, LU 2, LU 6.2, TCP/IP)*
- EDA/SQL Data Drivers (as needed)

*Required if connecting remote API/SQL clients or remote subservers.

For More Information

If you would like more information about EDA/SQL Server for MVS, please contact Information Builders, Inc. In the U.S. and Canada, call: 1-800-969-INFO.

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